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MAIL STOP APPEAL BRIEF - PATENTS

PATENT
1509-165

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of : Confirmation No. 6456
Stephen GOLD et al. :
Serial No.: 09/826,811 : Examiner: Baoquoc N. To
Filed: April 6, 2001 :
For: QUOTA MANAGEMENT IN CLIENT SIDE DATA STORAGE BACK UP

RECEIVED

JUL 19 2004

BRIEF ON APPEAL

Technology Center 2100

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

July 12, 2004

Sir:

Further to the Notice of Appeal filed May 12, 2004, in connection with the above-identified application on appeal, herewith are three copies of Appellants' Brief on Appeal. Authorization for payment of the \$330 appeal fee is attached.

To the extent necessary, Appellants hereby request any required extension of time under 37 C.F.R. §1.136 and hereby authorize the Commissioner to charge any required fees not otherwise provided for to counsel's Deposit Account No. 07-1337.

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I. REAL PARTY IN INTEREST

The real party in interest is HEWLETT PACKARD COMPANY, Palo Alto, California.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals and/or interferences.

III. STATUS OF CLAIMS

Claims 21-28 and 30-42 are pending and are rejected under 35 U.S.C. §103(a) as being unpatentable over Saxon (U.S. Patent No. 5,758,359). Claims 1-20, 29, and 43-47 are cancelled.

IV. STATUS OF AMENDMENTS

The Amendment under 37 C.F.R. §1.116 filed January 20, 2004, was entered in the Advisory Action mailed April 16, 2004, as a result of a Petition filed February 19, 2004.

V. SUMMARY OF INVENTION

The present invention relates to backing up files of client computers 101-103 (*FIGS. 1 and 2*). Backup computer or server 100 (*FIG. 1*) or backup computer 503 (*FIG. 5*) has a bulk storage device 504 in the form of a redundant array of inexpensive disks (RAID) for storing files to be backed up of the client computers 101-103 (*page 11, lines 15-18; page 13, lines 1-8; page 16, lines 23-29*). Client computers 101-103 respectively include data storage devices in the form of hard drives 505-517 (*page 16, lines 23-29*). Each of client computers 101-103 has a client data storage area that

stores files desired to be backed up to bulk data storage device 304 or 504 (page 16, lines 27-29).

The backup computer or server 100 or 503 is operated so data stored in the data storage areas 505-507 of client computers 101-103 respectively is selectively backed up in the RAID bulk storage device 504 (page 16, lines 21-29). Each client computer 101-103 determines if backup to the bulk storage device 504 is to be performed for the files desired to be backed up of the particular client computer.

For example, computer 101 determines if the files of computer 101 that computer 101 desires to have backed up are to be backed up to RAID 504. For a particular computer, e.g., computer 101, computer 101 performs this determination by using the steps illustrated in FIG. 14, which include:

(a) maintaining a list of files of the particular client computer 101 allocated for backup (*operations 1400, 1401; page 22, lines 25 and 26*);

(b) maintaining total size data describing the size of each of the listed files of client computer 101 (*steps 1402 and 1404-1408; page 22, line 26, through page 23, line 34*);

(c) determining the total file size of the listed files of client computer 101 (*operation 408; page 23, lines 3 and 4*);

(d) comparing the total file size data determined in step 408 with a predetermined size limit (*operation 1403; page 23, lines 5 and 6*); and

(e) determining whether to back up the client files, depending on the comparison between the total file size data and the predetermined size limit (*operations 1410 and 1412; page 23, lines 6-10 and 17-20*).

The step of determining whether to back up the data of client computer 101 includes comparing the total file size data of client computer 101 with a soft file size limit (*operation 409; page 23, lines 5 and 6*). If the total file size data exceeds the soft file size limit, a warning message is generated to indicate the soft file size limit is exceeded (*operation 1413; page 23, lines 20-25*). Backup of the files of client computer 101 is performed if the file size of client computer 101 is within the file size limit (*operation 1410; page 23, lines 6-10*).

If the soft file size limit is exceeded, the determination of whether to back up the files of client computer 101 also includes comparing the total file size data with a hard file size limit (*operation 1412; page 23, lines 17-20*). If the total file size of client computer 101 exceeds the hard file size limit, backup of the files of client computer 101 is prohibited (*operation 1414; page 23, line 27, through page 24, line 2*).

In the backup process, client computer 101 maintains a quota list that lists plural files stored in the backed-up region of client computer 101. For each of the plural files stored in the backed-up region of client computer 101, size data describing the size of the file stored in the backed-up region are stored (page 22, lines 26 and 27).

A difference list 1404 is stored for each client computer 101-103. The difference list is the difference between the files backed up during a previous back-up process and files currently to be backed up and stored in the data storage area of client computer 101 (page 22, lines 27-30).

The size of each file of client computer 101 is determined by comparing a list 1402 of current files of the client computer 101 desired to be backed up with a list of files desired to be backed up for client computer 101 during the immediately preceding backup operation (page 22, lines 26 and 27). The list for each changed file desired to be backed up for client computer 101 is altered in step 1405 (page 22, lines 30-32). If a file is deleted from client computer 101, that file is removed from the list (operation 1406; page 22, line 32, through page 23, line 2).

While the foregoing operations are described for client computer 101, it is to be understood that the same operations are performed for the other client computers, i.e., computers 102 and 103.

In Appellants' invention, if one client computer (e.g., computer 101) has excess data to be backed up, other client computers (e.g., computers 102 and 103) in a network can be backed up because the computer having excess data to be backed up can be prevented from being backed up. A further advantage of Appellants' invention is that a user of a client computer requiring excessive backups becomes aware that backup is limited.

In Saxon, none of the client computers is backed up if the total amount of backups from the client computers exceeds a limit.

The invention is also concerned with a method of operating backup computer 100 or 503 that included a data storage device in the form of RAID 504 for storing backup files of plural client computer computers 101-103. Client computers 101-103 transmit files to be backed up, i.e., backup files, to RAID 504 of the backup computer 100 or 503 (*page 16, lines 21-29*). Backup computer 100 or 503 receives and stores the total size data for and from each of client computers 101-103. The total file size data for each client computer (e.g., computer 101) to be backed up represents the total size at client computer 101 of files that computer 101 desires to be backed up to the backup computer 100 or 503 (*operation 1803; page 26, lines 8-13*).

Backup computer 100 or 503 is activated so that for each of client computers 101-103, the backup computer responds to the stored total size data. Backup computer 100 or 503 responds to the stored total size data to determine a hard and soft size limit for each client computer (*operation 1802; page 25, line 22, through page 26, lines 13*). The hard and soft size limits are transmitted to the client computers 101-103 to be backed up to enable the client computers to determine if the desired backup of a particular client computer exceeds a limit for that particular client computer.

A second aspect of the present invention relates to a backup computer determining backup limits for plural client computers

that are to be backed up. Each of the plural client computers sends to the backup computer an indication of how much data a particular client computer will be sent to the backup computer. The backup computer determines the sum of the indications of how much each client computer is to be backed up. The backup computer responds to the sum to determine at least one backup limit for each client computer. These backup limits for each client computer enable the client computer to compare the backup limit of a particular client computer with a backup limit for that client. This comparison enables the client computer to perform the first aspect of the present invention.

VI. ISSUES

A. Primary Issue

The primary issue involved in this appeal is that claims 21-47 are not rendered obvious by Saxon (U.S. Patent No. 5,758,359).

B. First Ancillary Issue

An ancillary issue is that Saxon does not disclose or make obvious a backup computer that receives and stores data representing total file size (i.e., data total file size) for and from each of plural client computers to be backed up by the backup computers, wherein the backup computer responds to the total size data for each of the client computers so the backup computer determines a file size limit representing a limit of total file size (i.e., file size limit) for each client computer.

C. Second Ancillary Issue

A further ancillary issue is that mass memory 14 of Saxon is not a memory of a client computer, but rather is a memory of a backup computer.

VII. GROUPING OF CLAIMS

A separate argument is presented for each claim. Consequently, there is no grouping of claims, and each claim stands and falls on its own merits.

VIII. ARGUMENT

The rejection of claims 21-37 as being obvious as result of Saxon (U.S. Patent No. 5,758,359) is wrong. The Office Action repeatedly makes incorrect statements regarding certain of Appellants' claimed features being included in Saxon and renders conclusions about Saxon that are not supported by any evidence.

A. Saxon does not render obvious the backed-up computer feature of independent claim 21 and its dependent claims 22-29

Independent claim 21, upon which claims 22-29 depend, distinguishes in an unobvious manner over Saxon by requiring, *inter alia*, a particular client computer being backed-up to perform the steps of (1) determining total size data describing the total size of listed files allocated for backup of the particular client computer, (2) comparing the total file size data allocated for backup of the particular client computer with a

predetermined size limit, and (3) determining whether to backup the particular client files depending on the comparison.

The analysis of claim 21 on pages 3 and 4 of the final Office Action ignores the **particular client computer** requirements of steps (2) and (3). The particular client computer requirements are in steps (2) and (3) because the "comparing" and "determining" steps of the claim refer to "said total file size data." The antecedent basis for "total file size data" is in the "determining" step, which specifies that such data describe the total size of the listed files of the **particular client computer**.

Saxon has no disclosure akin to limitations (2) and (3), because Saxon compares the total size of the files from many client computers selected for backup with a maximum size threshold (*column 3, lines 1-18, and column 7, lines 19-50*). Saxon compares the total size of the files from the many client computers selected for backup with a maximum size threshold to determine if there is enough time available for the backup computer to perform a complete backup of all the client computers that the Saxon backup computer backs up.

In contrast, Appellants perform the "comparing" and "determining" steps for a particular client computer to prevent (1) a user of the particular client computer from selecting a vast amount of data to be protected by backup and (2) taking up excessive backup server space. Further, by performing the comparing and determining steps for a particular client computer, the user of that client computer being backed up is able to

understand that backup has a quota and is not unlimited (page 2, line 27, through page 3, line 8, and page 3, lines 17-27).

Regarding claim 21, the final Office Action admits, "Saxon does not explicitly teach backup from the client computer." To remedy this deficiency, the Office Action incorrectly relies on column 5, lines 6-13, of Saxon. At column 5, lines 5-8, Saxon states that remote storage device 38 and network 18 can store the same sets created and stored in main storage system 14 during backup. Column 5, lines 8-13, merely says that backup scheduler 28 in server 12 (i.e., the backup computer, not the backed-up computer) could control the backup of some or all devices on network 18 and that it is possible to connect other networks where storage devices could reside. Hence, the relied-on portion of Saxon does not indicate that a client computer is involved in making a backup determination and does not in any way disclose a backup determination based on total backup file data size of that client computer.

In response to the argument advanced in the Amendment filed August 25, 2003, that Saxon contains no disclosure that mass memory 14 is a client memory or one of a plurality of client memories that is backed up by a backup memory, the final Office Action states on page 2:

The examiner respectfully disagrees with the above argument because Saxon discloses, 'in the alternative embodiment, many more devices, including client and server computers and storage devices, could be connected to the network 8 and the backup scheduler 28 could control the backup of some or all of the devices on the network 18. It is also possible to connect to

other networks where storage devices could reside.' (column 5, lines 9-14). The client computer is the storage device that [is] connected to the network 18.

However, column 4, lines 16 and 17, of Saxon indicates scheduler 28 is in server 12, i.e., the backup computer. Server 12 is not the backed up remote storage device 38 or the "some or all of the devices on the network." There is nothing in this portion of Saxon indicating scheduler 28 is in "some or all of the devices on the network."

The determining steps of dependent claims 22-24 require the second determining step that the client computer performs in claim 21 to comprise comparing the total file size data for a **particular client computer**. This is because the words "comparing said total file size data" of claims 22-24 have as an antecedent basis the client computer limitation of claim 21. Consequently, the allegation on pages 4 and 5 of the final Office Action that Saxon discloses the steps of claims 22-24 is wrong. The Saxon comparing steps are concerned with comparing the total size of all files from many client computers selected for backup to the backup memory with a total file size limit, rather than comparing the size of a file for a particular client computer with a file limit for that client computer.

Another incorrect allegation in the final Office Action is that at column 7, lines 50-57, Saxon discloses generating a warning message (as required by claims 22 and 24). The Examiner has refused to indicate where this or any other portion of Saxon alludes to a warning message, despite Appellants' request for

same. The Advisory Action, discussed in detail, *infra*, impliedly admits Saxon has no disclosure of this limitation. The final Office Action incorrectly states that column 7, lines 50-57, of Saxon discloses the requirements of claims 23 and 24 for comparing total file size data with a second file size limit data. This portion of Saxon indicates successive comparisons of total size of the retroactive backups are made with a single maximum size threshold.

The Examiner has mischaracterized Saxon insofar as claim 25 is concerned by saying that column 7, lines 22-27, of Saxon discloses maintaining a quota list, listing a plurality of files stored in a backup region of a client computer, and wherein for each file stored in the backup region there are stored size data describing the size of the file. Appellants are unable to find a discussion in this portion of Saxon of the foregoing terms or equivalents thereof. The Examiner has been requested to indicate more specifically how column 7, lines 22-27, of Saxon inherently includes the features of claim 25, since Saxon does not specifically disclose these features. There has been no reply, and the Advisory Action again implies Saxon does not disclose this feature.

The Examiner has also mischaracterized Saxon with regard to claim 26 by saying Saxon teaches, for the particular client computer, summing the total of all the file sizes to obtain total file size data of files stored in the backup storage area of the client computer. Claim 21, upon which claim 26 depends, says the

client data storage area stores files desired to be backed up to the bulk data storage device. The Examiner again refers to column 7, lines 22-27. However, this portion of Saxon is concerned with the maximum size threshold of all the selected files, as reference to column 7, lines 39 and 40, as well as column 3, lines 1-18 indicates.

In referring to claim 27, the final Office Action contends that Saxon, in column 7, lines 30-40, discloses storing a difference list for a particular client computer, wherein the difference list lists differences between files backed up during a previous backup process of files currently stored in the backup data storage area of the client computer, i.e., the client computer stores files desired to be backed up to the bulk data storage device, per claim 21. However, Appellants are unable to find, in column 7, lines 30-40, of Saxon, any discussion of a difference list as defined in claim 27, or the equivalent of a difference list. The Examiner has been requested to indicate how this portion of Saxon discloses a difference list per claim 27 but has not replied.

In discussing claim 28, the Examiner says:

Saxon teaches the size of teach [sic] file is determined by comparing a list of current files of the particular client computer desired to be back-up with a list of files desired to be back-up for the particular client computer during the immediately previous back-up, altering list for each changed file desired to be back-up for the particular client computer, for each deleted file for the particular client computer removing the file from the list, for each added file for the particular client computer adding file to the list.

Appellant assumes that the Examiner meant to say "backed-up" in lines 3, 4, and 7 of the previous quotation, rather than "back-up" or "back up."

According to the Examiner, column 7, lines 45-65, of Saxon discloses these features. In fact, however, column 7, lines 48-50, states that the operations of column 7, lines 50-60, are performed by comparing the **total** size to the maximum size threshold to determine if the total size is less than or equal to the maximum size threshold. Column 7, lines 41-43, and column 3, lines 1-10, indicate total size is computed by adding the sizes of the selected files to be backed-up, i.e., the sizes of the files of all the computers to be backed-up are added and compared with a maximum size threshold for all the computers of the network to be backed-up by the backup computer. Hence, the relied-upon portion of Saxon does not disclose a comparison of a list of current files of the **particular client computer**.

B. Saxon does not render the backup computer features of claim 30 and its dependent claim 31 obvious

Independent claim 30, upon which claim 31 depends, distinguishes in an unobvious manner over Saxon by requiring, *inter alia*, the backup computer to (1) receive total file size data for and from each of the client computers, wherein each of the total file size data represents the total file size at the client computer of files the client computer desires to be backed up to the backup computer, and (2) respond to the stored total size data for each client computer to determine, for each client

computer, a file size limit for which backup of the files of the client computer is permitted.

The Examiner's reliance on column 7, lines 46-60, of Saxon for the feature of the backup computer determining a file size limit representing a limit of total size file **for each client computer**, for which backup of files is permitted, is wrong. Column 7, lines 48-50, and column 3, lines 1-10, of Saxon indicate total size for all the client computers is determined because total size is computed by adding the selected new size set sizes together. Saxon has no disclosure of determining the total size file limit for each client computer as alleged in the final Office Action.

Appellants have told the Examiner they do not understand his comment regarding claim 30 that "Saxon does not explicitly teach backup from the client computer." Claim 30 does not discuss backup from a client computer. Instead, claim 30 is concerned with operating a backup computer. The Examiner has not responded.

In discussing claim 31, the Examiner mischaracterizes column 7, lines 40-67, of Saxon by saying the reference "teaches transmitting from the backup computer to the client computers the file size limit determined for each client computer." There is no mention in this portion of Saxon of a transmission from a backup computer to a client computer. This is particularly true of a file size limit.

C. Saxon fails to make the client computer features of independent claim 32 and its dependent claims 33-35 obvious

Independent claim 32, upon which claims 33-35 depend, distinguishes in an unobvious manner over Saxon by requiring, *inter alia*, a method of operating a client computer which includes (1) storing size data describing the size of client files to be backed up, (2) summing the plural file sizes of the client computer to obtain a summed file size total for the client computer, and (3) comparing the summed file size total of the client computer with a size quota limit for the client computer.

Operations (2) and (3) are required to be with respect to the client computer because the only mention of file sizes in claim 32 is with respect to the size of the client file. In this regard, see the limitation that recites "storing size data describing the size of said client file." As previously discussed, Saxon is concerned with comparing the total size of the files of multiple computers that are being backed up with a limit for the total of the file sizes of the backed-up computers. This is not a comparison of the size of the files of the client computer with a limit for the files of that client computer.

In response to the Examiner's admission that Saxon does not explicitly teach backup from the client computer but does disclose a network, Appellants note that Saxon has no disclosure of operating a backup computer to determine file size limit of a client computer. Appellants, by performing the necessary back-up calculations and comparison at the client computer, avoid the need

to transmit the data necessary to perform the calculations to a remote device and then retransmit the resulting information back to the client computer.

Claims 33 and 34 add limitations to claim 32 similar to the limitations claims 22 and 23 add to claim 21. Claims 33 and 34 are rejected on the same previously discussed erroneous basis as claims 22 and 23. Consequently, the arguments advanced with regard to claims 22 and 23, as well as claim 32, are applicable to claims 33 and 34. As noted in connection with claim 27, column 7, lines 45-60, of Saxon does not disclose generating a difference list that lists the files changed between the current file list and the previous file list.

D. Saxon does not render the client computer features of claim 36 and its dependent claims 37, 38, and 40 obvious

Independent claim 36, upon which claims 37, 38 and 40 depend, distinguishes in an unobvious manner over Saxon by requiring, *inter alia*, a client computer that is arranged to receive a first quota limit from an external source, wherein the first quota limit describes an amount of data storage capacity the client computer is permitted to maintain in a data storage area for files which are subject to a backup process.

The Examiner has mischaracterized Saxon with regard to claim 36. Saxon has no disclosure of any details of a client computer, no less a client computer with a processor that receives a first quota limit from an external source, wherein the first quota limit

describes an amount of data storage capacity the client computer is permitted to maintain for client files subject to a backup process. Saxon has no disclosure in column 7, lines 41-60 of a client computer, no less of a client computer with the foregoing requirements. The operations Saxon describes in column 7, lines 41-60, are the operations performed in backup scheduler 28 of server 12 (which functions as a backup computer, not a backed-up computer) that adds the sizes of the selected files to be backed up, as discussed by Saxon in column 3, lines 1-18, and column 7, lines 21-50. The Examiner's conclusion that it would have been obvious to provide the data processor of claim 36 in the client computer is wrong, because it ignores the advantages of providing the data processor of claim 36 in the client computer, instead of the server. Because the Examiner has provided no rationale as to why one of ordinary skill in the art would have modified Saxon to arrive at the limitations of claim 36, he has not attempted to establish a *prima facie* case of obviousness.

Claims 37 defines the second quota limit requirement. Arguments similar to those advanced with regard to claim 23, that also includes the second quota limit, are applicable. Appellants cannot agree with the Examiner's comments with regard to the requirement of claim 38 to maintain a difference list and refer to the arguments previously advanced concerning these issues.

E. Saxon does not make the client computer features of independent claim 39 and its dependent claim 45 obvious

Independent claim 39, upon which claim 45 depends, distinguishes in an unobvious manner over Saxon by requiring, *inter alia*, a method of backing up data of a client computer that includes the steps of:

- (1) determining the total size of all files of the client computer to be backed up each time a backup operation of the client computer is initiated;
- (2) if the total size of all files of the client computer to be backed up exceeds a first limit, a determination is made if performance of the backup of the client computer would cause a second predetermined quota limit to be exceeded;
- (3) if it is determined that backup of the client computer would cause the total size of all files of the client computer to be backed up to exceed the first quota limit but not the second quota limit, the backup is performed, and a warning signal is generated to warn that the first predetermined quota limit is exceeded; and
- (4) if performance of the backup would exceed the second predetermined quota limit, backup of the client computer is prohibited, and a warning signal is generated that the second quota limit would be exceeded.

As written, claim 39 includes the "client computer" requirements of steps (2)-(4) above, because the only backup operation referred to in the claim is of the client computer. As

previously discussed, Saxon does not disclose two quota limits. In addition, Saxon does not disclose making the determination vis-à-vis a client computer. Further, as previously discussed, the quoted portion of Saxon does not disclose generating a warning signal, particularly the warning signals that claim 39 recites.

In response to the Examiner's comment that it would been obvious to have provided Saxon with a second predetermined quota limit, Appellants note that the technique Saxon discloses in column 7, lines 52-66, deals with the retroactive backup of the entire computer system to determine if adequate time exists to perform the backup. In contrast, claim 39 is directed to a method of backing up data of a client computer and provides the features previously discussed for enabling a user of the client computer to deal with backup quotas. Because Saxon and Appellants are approaching the backup problem from opposite directions, one of ordinary skill in the art would not have modified Saxon to arrive at the combination of claim 39.

F. Saxon does not make the client computer features of claim 40 and its dependent claim 41 obvious

Independent claim 40, upon which claim 41 depends, distinguishes in an unobvious manner over Saxon by requiring, *inter alia*, a method of operating a client computer. The steps of claim 40 include maintaining a quota list having a list of files in a backup storage area of the client computer and modifying the quota list to list the actually backed up files in response to the client computer being backed up to a backup computer.

The discussion of claim 40 on page 14 of the final Office Action contradicts the discussion of claim 40 on page 15. Page 14 says "Saxon teaches a method of operating a client computer," while page 15 admits that "Saxon does not explicitly teach [a] client computer." In fact, Saxon does not disclose anything about operating a client computer. Performing the operations in a client computer is not made obvious by Saxon for the reasons previously discussed.

Also incorrect is the analysis of Saxon on page 14 of the final Office Action with regard to the requirements of claim 40 about maintaining a quota list and modifying the quota list. As previously discussed, the total size Saxon discusses in column 7, lines 22-28, results from adding the new save set sizes of the selected files of the multiple computers that are backed up by the Saxon retroactive backup arrangement. Saxon does not modify the quota list of a client computer.

In addition, Saxon does not modify the quota list of client files in a backup data storage area of a client computer as claim 40 requires. Instead, if the amount of a backup is excessive, Saxon removes from mass storage system 14 a file that otherwise would have been backed up. The amount of backup is excessive if the time the backup would have taken is in excess of the time available for the backup, as determined by adding together the sizes of the files to be backed up. Hence, Saxon focuses on resolving problems of excessive backup time for mass storage system 14 (i.e., the backup computer), while Appellants are

concerned with enabling a client computer user (i.e., the user of a computer to be backed up) to understand quota limits.

G. The unsupported and erroneous statements of the Advisory Action

The Advisory Action makes numerous unsupported statements to the effect that certain concepts of Appellants' invention are analogous to concepts of the Saxon reference. For example, the Advisory Action states:

Saxon teaches the concept of backing up file[s] from multi-clients by determining the maximum size threshold (col. 3, lines 1-18 and col. 7, lines 19-15), which is the same concept of backing up a particular client computer as [the] present invention. The backing up multi-client is the same as backing up for a particular client because the same concept is [utilized].

Other unsupported (and more difficult to interpret) statements read:

The columns 5, as mentioned in the previous office action, utilizing by the examiner to point out that the Saxon system having the client which equivalent to the particular client of the present invention.

and

The conceptual of backing up file from multi-client of a particular client is the same. If the conceptual of performed backing up multi-clients, so does the particular client computer by one ordinary skill in the art.

First, Appellants cannot agree that the concept of backing up from a server is the same as of backing up a computer at the computer that is being backed up. Appellants have pointed out advantages of performing the backup and in connection with the

backed up computer. These advantages are completely ignored in the Office Actions.

Second, the Examiner's position with regard to the concepts being the same, without some form of evidence in the record to support such an assertion, is contrary to established case law. *In re Lee*, 277 F.3d 1338, 1344-45, 61 U.S.P.Q.2d 1430, 1434-35 (Fed. Cir. 2002); *In re Zurko*, 258 F.3d 1379, 1385, 159 U.S.P.Q.2d 1693, 1697 (Fed. Cir. 2001). These cases hold that general conclusions concerning what is "basic knowledge" or "common sense" to one of ordinary skill in the art, absent specific factual findings and some concrete evidence in the record to support these findings, will not support an obviousness rejection.

In the present case, the Examiner has provided only general conclusions as to the "concepts" of a back-up computer and backing-up computer being the same. No evidence in support of this position is presented.

The Advisory Action cites Appellants' argument that:

Saxon has no disclosure of any details of a client computer, no less a client computer with a processor that receives a first quota limit from an external source, wherein the first quota limit describes an amount of data store capacity, the client computer is permitted to maintain for client files subject to a backup process.

The Examiner replies that Appellants' argument is incorrect because column 3, lines 1-3, of Saxon discloses "the sizes of the selected files in each identified save set are then added to give a new save set size...Save set is the quota limit according to the claimed invention."

This puzzling response by the Examiner has nothing to do with a client computer with a processor receiving a first limit from an external source.

The Advisory Action also cites Appellants' argument that Saxon does not disclose (1) two quota limits and (2) making a determination *vis-à-vis* a client computer.

The Advisory Action replies:

The Examiner respectfully disagrees with the above argument because in Saxon[,] the total size is compared to the maximum size threshold to determine if the total size is less than or equal to the maximum...if the threshold has not been reach[ed] and there is no 'next most recent save set' at step 64. Then the method of the illustrated embodiment terminates at step 70 since the method cannot stay within the maximum size limits (col. 7, lines 41-67), are the multiple conditions or threshold regarding backing up the maximum size.

The foregoing has nothing to do with two "limits."

In response to Appellants argument that the relied-on portion of Saxon does not disclose generating a warning signal, the Examiner said, "It is known when the operation is failed to perform the backing up operation to notify the user [sic]. It is the same with generation of warning signals."

However, the Examiner has presented no evidence and does not even indicate any evidence exists to support his position that it is known to generate a warning signal when a "limit of a computer being backed up is reached." Consequently, the Examiner ignores the mandates of *In re Lee, ibid.*

IX. CONCLUSION

The Examiner has repeatedly made (1) incorrect statements about certain claimed features being included in Saxon and (2) conclusionary statements that features of the claims have the same concept as Saxon, the only reference applied against the claims on the basis of obviousness under 35 U.S.C. §103(a). The conclusionary statements are not supported by evidence and ignore the advantages associated with the claimed features.

A first aspect of Appellants' invention is that a determined data size back-up limit for a particular client computer being or to be backed up is compared with the amount of data the particular client computer has to be backed up. Saxon compares the value of the total amount of data to be backed up from plural client computers of a network with a limit for this value.

Appellants' invention involves control of the particular client computer (i.e., the computer to be backed up). Saxon involves control of the network backup computer (i.e., the computer that backs up the computer to be backed up). One purpose of Appellants' invention is to prevent an improper backup if a single client computer has excessive data to be backed up. Saxon does not deal with this concept. In Saxon, none of the client computers are backed up if only one or two client computers have an excessive amount of data requiring backup.

Thus, the foregoing aspects of the present invention are not the same concepts as Saxon, and the present invention offers considerable advantages over Saxon. The Examiner has not

established a *prima facie* case of obviousness with respect to this or any other aspect of Appellants' invention.

A second aspect of the present invention relates to a backup computer determining backup limits for plural client computers that are to be backed up. The second aspect also enables selective backup of client computers of an entire client computer network, except for those client computers that exceed their limit(s). Saxon merely determines if the entire network backup limit will be exceeded and discloses nothing similar to the second aspect of the present invention. There is nothing in Saxon that leads one of ordinary skill in the art to the second aspect of the present invention. Thus, the steps and "concept" of the second aspect are entirely different from any step or concept disclosed by Saxon. The Examiner has not made out a *prima facie* case of obviousness.

Based on the foregoing, claims 21-28 and 30-42 are allowable, and the rejection thereof cannot be sustained.

Respectfully submitted,
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X. APPENDIX

21. A method of backing up files of plural client computers to a back up computer having a bulk data storage device for storing files to be backed up of the client computers

each of said client computers comprising a data storage device having a client data storage area storing files desired to be backed up to the bulk data storage device

said method comprising:

operating said back up computer so back up data stored in said client data storage areas of each of said plurality of client computers is selectively backed up in the bulk storage device,

determining if back-up to the bulk storage device is to be performed for the files desired to be backed up of a particular client computer by performing the following steps at each particular client computer:

(a) maintaining a list of files of said particular client computer allocated for backup;

(b) maintaining total size data describing the size of each of said listed files of the particular client computer;

(c) determining the total file size data describing the total size of said listed files of said particular client computer;

(d) comparing said total file size data with a predetermined size limit; and

(e) determining whether to back up said client files or not, depending on said comparison between said total file size data and said predetermined size limit.

22. The method as claimed in claim **21**, wherein said step of determining whether or not to back up said client data comprises:

 comparing said total file size data with a first file size limit;

 if said total file size data exceeds said first file size limit, generating a warning message indicating said first file size limit is exceeded; and

 performing back up of said client files within said file size limit.

23. The method as claimed in claim **22**, wherein said step of determining whether or not to back up said client files comprises:

 comparing said total file size data with a second file size limit data;

 if said total file size data exceeds said second file size limit, then prohibiting back up of said client files.

24. The method as claimed in claim **22**, wherein said step of determining whether or not to back up said client files comprises:

 comparing said total file size data with a second file size limit data;

 if said total file size data exceeds said second file size limit, then prohibiting back up of said client files; and

 generating a warning message that said second file size limit is exceeded.

25. The method as claimed in claim **21** comprising the process of:

maintaining a quota list, listing a plurality of files stored in a backed up region of said client computer, wherein for each of said plurality of files stored in the backed up region there are stored size data describing the size of said file stored in the backed up region.

26. The method as claimed in claim **25** further comprising the step of:

for the particular client computer, summing the total of all said file sizes to obtain total file size data of files to be backed up and stored in the client data storage area of said client computer.

27. The method as claimed in claim **25** further comprising the process of:

for the particular client computer, storing a difference list listing differences between files backed up during a previous back up process and files currently to be backed up and stored in the client data storage area of said client computer.

28. The method as claimed in claim **21** wherein the size of each file is determined by comparing a list of current files of the particular client computer desired to be backed-up with a list of files desired to be backed-up for the particular client computer during the immediately previous back-up, altering the

list for each changed file desired to be backed up for the particular client computer, for each deleted file for the particular client computer removing the file from the list, for each added file for the particular client computer adding the file to the list.

30. A method of operating a back up computer, said back up computer comprising:

 a data storage device for storing backup files of plural client computers;

 said method comprising steps of

 selectively transmitting backup files of the client computers to the backup data storage device;

 receiving and storing at the backup computer total file size data for and from each of the client computers, each of said total file size data representing the total file size at said client computer of files which the client computer desires to be backed up to said back up computer; and

 for each said client computer, activating the back up computer to respond to the stored total size data so the back up computer determines a file size limit representing a limit of total file size for each said client computer, for which back up of said files is permitted.

31. The method of claim **30** further including transmitting from the backup computer to the client computers the file size limit determined for each client computer.

32. A method of operating a client computer, said client computer comprising:

a data storage device for storing files of the client computer, said data storage device having a back-up data storage area from which files of the client computer can be sent for backup to a back up computer;

said method comprising the steps of:

storing in said back-up data storage area files of the client computer desired to be backed-up;

creating a list of files of the client computer resident in said back-up data storage area;

for each said files of the client computer on said list, storing size data describing the size of said client file;

summing said plurality of file sizes to obtain a summed file size total; and

comparing said summed file size total with a size quota limit.

33. The method as claimed in claim 32, wherein said size quota limit comprises a first size limit; and

said method further comprises the step of warning at said client computer that said first quota limit is exceeded in response to said summed total file size data exceeding said size quota limit.

34. The method as claimed in claim 33, wherein said size quota limit comprises a second quota limit; and

said method further comprises the step of:

prohibiting back-up of at least one file in said client backed-up data storage area in response to said summed file size data being greater than said second quota limit data.

35. The method as claimed in claim **32**, further comprising the steps of:

comparing a list of current files of the client computer in said client backed-up data storage area with a previously generated list of files of the client computer representing the status of files in said back-up client area at a previous time;

identifying files of the client computer which have changed between said current file list of the client computer and said previous file list of the client computer; and

generating a difference list listing said files of the client computer that have changed between said current file list and said previous file list.

36. A client computer comprising:

a data storage device having a data storage area for files which are subject to a back-up process;

an interface device; and

a data processor for managing back-up of files in said backed-up data storage area, said data processor being arranged to (a) send said files to a back up computer via said interface device and (b) receive a first quota limit from an external source, said first quota limit describing an amount of data

storage capacity said client computer is permitted to maintain in said data storage area for files which are subject to a back-up process.

37. The client computer as claimed in claim **36** wherein said data processor is arranged to receive a second quota limit from an external source, said second quota limit describing an amount of data storage capacity which said client computer is permitted to maintain in said data storage area for files which are subject to a back-up process.

38. The client computer as claimed in claim **36** wherein said client data processor is arranged to:

maintain a quota list describing the amount of data allowed to be stored in said data storage area for files of the client computer which are subject to a back-up process;

maintain a file list describing one or more files of the client computer currently stored in said data storage area for files of the client computer which are subject to a back-up process;

maintain a previous file list describing a plurality of files of the client computer previously stored in said data storage area immediately prior to a last back-up operation carried out by the data processor for files of the client computer which are subject to a back-up process; and

maintain a difference list storing data describing differences between files on said new file list, and files of the client computer on said previous file list.

39. A method of backing-up of data of a client computer on a back-up computer, said method comprising the steps of:

each time a back-up operation of said client computer is initiated, determining the total size of all files of said client computer to be backed up, and determining whether performance of said back-up would cause a first predetermined quota limit to be exceeded, and if the first limit is exceeded determining if performance of said back-up would cause a second predetermined quota limit to be exceeded;

if it is determined that performance of said back up would cause said first predetermined quota limit to be exceeded, but said second predetermined quota limit not to be exceeded, then proceeding with said back-up, and generating a warning signal warning that said first predetermined quota limit is exceeded;

if performance of said back-up would exceed said second predetermined quota limit, then prohibiting said back-up, and generating a warning signal that said second predetermined quota limit would be exceeded; and performing the back-up if the first limit is not exceeded.

40. A method of operating a client computer, said client computer comprising:

 a data storage device for storing client files, said data storage device having a back-up data storage area from which files can be sent to a back-up computer for back-up;

 said method comprising the steps of:

 storing client files desired to be backed up to the back-up computer in the back-up data storage area;

 maintaining a quota list, said quota list comprising a list of client files in said back-up data storage area which were backed up during a previous back-up operation;

 backing up to the back-up computer said files client stored in said back up data storage area;

 in response to said backing up operation, modifying said quota list to list the actually backed up client files.

41. The method as claimed in claim **40**, further comprising the steps of:

 producing a modified quota list comprising a list of client files currently in said backed up data storage area; and

 determining from said modified quota list, whether performance of a back up operation is within a quota limit.

42. The method as claimed in claim **41**, wherein said step of producing the modified quota list comprises:

generating a difference list, said difference list listing details of files which have differences between the current content of said backed up data storage area and said quota list.